COUNSELING: A VITAL COMPONENT TO AURAL REHABILITATION ACROSS THE LIFESPAN FOR THE HEARING IMPAIRED AND THEIR FAMILIES

Capstone Project

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ABSTRACT

The purpose of this document was to examine the importance of counseling as part of the aural rehabilitation provided to hearing impaired individuals and their families. With counseling techniques set in place, the goal of counseling-based aural rehabilitation is to improve the acceptance of hearing loss and satisfaction of hearing aids within the hearing impaired population. Pediatric children, school-aged children, adolescents, adults, and older adults can all be affected by hearing loss. Regardless of when a hearing loss is detected, it can affect the emotional well-being of an individual and his or her family. Because effective counseling can enhance treatment outcomes, including hearing aid use and acceptance, it is an important skill to be learned by audiologists.

DEDICATION

The author would like to dedicate this Au.D. Capstone Document to her parents, Mark and Cheryl Monjot. Throughout the author's lifetime, Mr. and Mrs. Monjot have been a source of unconditional love and encouragement. Without the support of her parents, the author would not be where she is today.

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CHAPTER 1

Introduction

Aural rehabilitation is an important aspect of the audiology profession. The goal of aural rehabilitation is to help to reduce the negative effects that hearing loss has on overall function, activity, participation and quality of life (Boothroyd, 2007). Aural rehabilitation helps to decrease these negative effects using a multifaceted and client-specific approach—through counseling, training, management, and instruction. A client-specific treatment is guided by the individual and family members, and is important as it keeps the client involved in decision-making and helps to guide the goals of treatment. The aural rehabilitation process is comprised of several components, including hearing-aid fitting and orientation, counseling, auditory-visual training, conversational strategies, environmental training, and consumer organizations.

Counseling is crucial to a successful and effective aural rehabilitation program. The act of counseling encompasses the provision of professional advice and guidance to an individual in need. Psychological methods are used to counsel during the collection of case history, throughout the personal

interview, and during aural rehabilitation. The aim of counseling is to address pathology, wellness, and personal growth. There are two types of counseling styles or techniques that may be used within the aural rehabilitation domain. Educational counseling is strictly content-based and is related to the informative aspect of counseling. This includes information regarding the type, degree and configuration of the hearing loss, etiology of hearing loss, and treatment for hearing loss. Supportive counseling, on the other hand, involves both the emotional and affective features of counseling. Helping the client through the emotional response to hearing loss as well as the grieving process, transitioning from denial to acceptance, are all part of supporting counseling.

Patient counseling is an integral component of the profession of Audiology. It is important to keep in mind, however, that counseling must be kept within the scope of the audiologist's profession. Counseling is meant to be kept short term and audiologists should not venture far beyond the boundaries of the knowledge and skills of the profession—audiologists are not psychologists! In this sense, counseling is related to assisting the patient improve communication and ease problems associated with hearing loss.

Hearing loss is a prevalent condition in all age groups across the lifespan. With an estimated prevalence of 34 million older adults in America alone, presbycusis is among the most widespread disabilities in the world (Helzner et al., 2005). Through audiologic testing, hearing impairment can be assessed quite easily. Hearing impairment, or the decrease in hearing sensitivity, refers to the actual abnormality of function or body structure that can be defined based on

the pure tone audiogram. Hearing handicap, on the other hand, occurs as the result of the impairment and usually refers to the participation restriction experienced by the hearing impaired listener (Clark & English, 2004). Hearing handicap can be thought of as the social consequence of the hearing impairment—it may have adverse effects on relationships and may cause the person to feel socially isolated and withdrawn.

Not only is the counseling process necessary for adults who discover they have a hearing impairment, it is essential for parents who learn that their child has been diagnosed with a hearing loss. The diagnosis of a permanent hearing loss can emotionally affect the patient, as well as their family members (Clark & Martin, 1994). To be effective in counseling within the profession of audiology, the audiologist must be cognizant of the emotional responses that accompany hearing loss. Regardless of when a hearing loss is detected, different struggles accompany a hearing deficit throughout the life of an individual. Pediatric children, school-aged children, adolescents, adults, and older adults can all be affected by hearing loss. These age groups differ in many ways, both physiologically and emotionally. The consequences of hearing loss and the magnitude of emotional response vary from one individual to the next, but it is without question that discovery of a hearing impairment induces some sort of emotional response in everyone. Counseling patients and their families about hearing loss is important at every age. For the pediatric population, the audiologist will be interacting with parents and developing a rapport with the parents is an important part to counseling. For parents of a child with hearing

loss, the emotional response may consist of questions and concerns regarding their child's language development and future education. Adults who have hearing loss may have trouble communicating in their daily activities, including their profession. In the elderly, however, hearing loss may provoke feelings of loneliness and social isolation (Christian, Dluhy, & O'Neill, 1989). Older adults often believe that there is a stigma associated with hearing loss that suggests makes them "old".

Counseling contributes to a positive and effective aural rehabilitation experience for populations with hearing loss. Hearing loss affects people from all over the world, at different walks through life, and at different ages. Audiologists interact with patients from all different populations and age groups. Though hearing loss affects everyone in some way, diagnosis of hearing loss can affect people differently across the lifespan. The management of hearing impaired patients who choose to use amplification requires effective pre- and post-issue counseling that considers the patients' emotional, financial, and audiological needs (Brooks, 1979). With counseling techniques set in place, the goal of counseling-based aural rehabilitation is to improve the acceptance of hearing loss and satisfaction of hearing aids within the hearing impaired population. The purpose of this paper is to demonstrate the importance of counseling during the aural rehabilitation process. This paper seeks to establish that counseling-based aural rehabilitation leads to successful outcomes for patients with hearing loss.

CHAPTER 2

Pediatric Population

Parents may discover that their child has a hearing loss at birth, through the Universal Newborn Hearing Screening, or later in the child's life. In either case, the parents can be affected both emotionally and financially. Parent counseling is a vital element for audiologic success when managing and treating children of all ages with hearing loss. The management of hearing impaired patients who choose to use amplification requires effective pre- and post-diagnosis counseling that considers the patients' emotional, financial, and audiological needs (Brooks, 1979).

Martin and his colleagues (1987) studied counseling parents of children with hearing loss. The purpose of this study was to evaluate how audiologists and parents felt regarding the counseling that they experienced. The goal was to evaluate both parents and audiologists concerning appropriate counseling to determine how audiologists can better meet the needs of parents of hearing-impaired children. Five hundred parents of hearing impaired children were mailed questionnaires to investigate how they felt about the way they were told

about their diagnosis of their child's hearing impairment. The questionnaires were completed by 268 parents of hearing-impaired children. Eighty-five out of 500 audiologists completed the questionnaire to give information regarding the current practices in parent counseling at the time of diagnosis. The surveys were comprised of multiple choice, fill-in, and essay questions that aimed to elicit information regarding parents' feelings and experiences during the diagnosis and counseling process. The factors that were examined were diagnosis, parent reactions, memories, acceptance, information, approach, and counseling.

Findings showed that in diagnosis, parents and audiologists differ in their idea of when the parent's suspected that their child had hearing loss (Martin et al., 1987). Audiologists reported that parents become more suspect later in the child's lives than the parents reported. Parents and audiologists also differ in estimating the time at which a diagnosis of hearing loss is made, with audiologists reporting that the diagnosis is made later than the parents believe it was made. This research also shows a difference in the audiologists' view and the parents' view of their reactions to the diagnosis of hearing loss (Martin et al., 1987). Parents reported that their first reaction to learning of their child's hearing loss was sorrow, where audiologists reported that the parents' first reaction is denial. This finding shows that audiologists must either be more aware of the parents' feelings, or help make the parents feel more comfortable to show their true feelings. The questionnaires revealed that the parents' memories of the day of diagnosis show that the parents remembered details like the weather and testing room, as well as the feelings of sorrow, rather than the factual information

regarding the diagnosis (Martin et al., 1987). Acceptance of the diagnosis of hearing loss is another factor that shows a disconnect between the views of the parents and those of audiologists. The research showed that over half of the parents questioned reported that they immediately accepted their child's hearing loss upon diagnosis. On the other hand, only 4% of the audiologists reported that the parents were immediately accepting of the diagnosis. Martin and his colleagues (1987) found that over 95% of the parents questioned about the information regarding hearing loss would have liked to receive additional information, including available services, literature, coping strategies, and how to meet other parents of hearing-impaired children. Audiologists reported that while they provide information at the diagnosis, it usually takes parents up to a year to understand it all. The approach is the way in which audiologists explain the results and treatment to the parents. The majority of parents reported that there were positives and negatives to the audiologist's approach. Parents appreciated the positive and direct manner in which audiologists presented the diagnosis. When asked about counseling in the questionnaires, the parents gave four major counseling improvements that could be made. First, parents reported that the audiologist must possess positive traits, including offering supportive listening and realistic hope to the parents. Second, parents reported that they need immediate and local family-centered services for their child. They also reported being interested in group counseling. The third counseling improvement mentioned by parents was to provide more information about available services, realistic expectations, and the importance of early intervention and amplification.

The last counseling improvement reported by parents was the opportunity to meet with other parents of hearing impaired children (Martin et al., 1987).

Results of the questionnaires showed that there is a disconnect between the parents of hearing-impaired children and audiologists. The results indicated that the long-term counseling needs of parents are not being met, therefore, Martin and his colleagues (1987) suggest that the parent-audiologist relationship should not end once the diagnosis is complete. Audiologists should recognize the need for follow-up care with the hearing-impaired child and his or her family for appropriate growth and development.

With the use of newborn hearing screening, diagnosis of hearing loss can be made early. This can have a tremendous effect on the development of an infant with hearing loss. How the information is delivered to the parents following a newborn hearing screening is crucial. Tharpe and Clayton (1997) noted three important factors that affect how the diagnosis of hearing impairment is delivered to the parents. First, the individual who delivers the diagnosis must be determined. This person may be a nurse, technician, or audiologist. Second, Tharpe and Clayton (1997) reported that how the results of a failed screening are shared with the parents is important. Hospitals may choose to deliver the results of the screening via telephone, mail, or in person. Whichever way the results are shared with the parents, it is necessary to give the parents information regarding the procedure, follow-up testing, and intervention. The final factor that affects how the diagnosis of hearing impairment is delivered to parents of a

newborn according to Tharpe and Clayton (1997) is to decide to whom the results are given, whether that is the pediatrician, parents, or both.

A study by Luterman and Kurtzer-White (1999) investigated the reactions of parents after learning of their child's hearing loss. In this study, 200 parents of hearing impaired children were surveyed using open-ended questionnaires, which asked how and when they would have liked to learn of their child's hearing impairment. Of these parents, 83% reported that they would have liked to know of their child's hearing impairment at birth. Sixty-nine percent of the parents surveyed reported that an audiologist should be the one to deliver the diagnosis and counsel the parents regarding hearing loss. Parents also responded that they would be interested in learning about services at this time, and would want to be able to contact other parents of children with hearing loss.

According to Cherow, Dickman and Epstein (1999), family-centered intervention should begin immediately following the identification of hearing loss in a newborn. These authors suggest that a multidisciplinary approach should be utilized in the education and management of families with a hearing impaired child. As part of a multidisciplinary team, each professional provides expertise in their area to help the family and the patient. Several professionals and their responsibilities are described as part of the team, including an otolaryngologist to provide both medical and surgical intervention if needed, a speech-language pathologist to help build the necessary speech and language skills needed for developmental growth, and an audiologist to provide not only diagnostic evaluations, but aural habilitation (Cherow et al., 1999).

Family-centered counseling is an important counseling technique that is effective for young children with disabilities (Carney & Moeller 1998). In a family-centered approach, the clinician works closely with family members and caregivers to help the child succeed. Parents, siblings, and even grandparents are encouraged to be actively involved in the treatment for the impaired child. With family-centered counseling, the idea is that the family is knowledgeable, proactive, involved, and supportive.

Family-focused counseling in families with children with hearing loss is supported by Bailey et al. (1986). In this article, several studies were reviewed that reported the benefits of family-centered intervention for young children. Family counseling improved the child's success and achievement socially, emotionally, and academically. The authors suggest that in addition to speech and academic goals as part of a treatment plan for hearing impaired children, goals should also include family understanding and acceptance of hearing loss. This can help to decrease family stress and help to aid in adjustment. When involved with family-centered counseling, parents displayed better teaching skills, children showed improved behavior, parent-child interaction improved, and stress experienced by parents decreased. The positive effects of family-centered counseling in children with hearing loss confirm that counseling is a crucial aspect of aural rehabilitation for children and their families.

There are different stages of emotional response that occur throughout the lifetime regarding the diagnosis of hearing loss (Schlesinger, 1978). The stages of emotional response begin at infancy, when the parent learns of their child's

hearing loss, through school age, and beyond. As infants, humans require their caregivers to respond sensitively to their needs. For example, babies need to be rocked, fed, bathed, and changed. Additionally, babies need to form a bond with their parents, which helps to establish a basic sense of trust between the adult and child. According to Schlesinger (1978), when hearing loss is present in infants, the interaction between parent and child may be limited. Parents may feel frustrated when trying to engage the infant, or feel a sense of rejection when trying to soothe or entertain the infant. Additionally, parents may experience a sense of devastation that their child has hearing loss and may undergo grief and anxiety about their child's condition. In this stage, it is important that the audiologist supports the parents in distress. The audiologist should be empathetic, not sympathetic, to the parents' emotions. It is important for the audiologist to be an active listener as the parents share their feelings. Offering realistic reassurance to the parents may help them to overcome some levels of stress. At the same time, audiologist should help parents to recognize the nonverbal ways in which their babies are trying to communicate. These interactions include smiling, making eye contact, and using facial expressions.

Luterman (1999) describes the grief that can be encountered by the family when a child is diagnosed with hearing loss and the grieving process that follows. Luterman describes the feelings that may be experienced by the family, including siblings and grandparents, and how the clinician should acknowledge and accept these feelings. These feelings need acknowledgment and acceptance, and require empathetic listening, not judgment. The feelings described are

inadequacy, anger, guilt, vulnerability, and confusion. With inadequacy, Luterman explained that parents may feel they are unable to help their child so they rely on the clinician to fix their child. According to Luterman, anger arises from a violation of expectations, where the parent believes the clinician should be able to solve or cure the deafness. Additionally, loss of control, loss of personal freedom and fear all contribute to the anger felt by parents of hearing impaired children. Guilt is another feeling that many parents experience. The parent wants to be able to make the child whole again and wonders if he or she did something to cause the hearing impairment. Vulnerability is felt when parents wonder, "Why did this happen to me?" The last feeling that Luterman described as needing acknowledgment during the counseling process is confusion. When parents first learn of their child's hearing loss, they may be in a state of shock and may subsequently shut down cognitively. They may not be ready for much of the information surrounding hearing loss and treatment.

Luterman (1999) described client centered therapy, a counseling technique that is used for many different disciplines, and is also effective in aural rehabilitation and counseling in audiology. Client centered therapy refers to a technique developed by Carl Rogers in which responsibility for acceptance and growth is dependent on the client. With client centered therapy, the goal is to empower the patient, or family. With this counseling technique, Luterman describes three conditions that must be met in order for client centered therapy to be successful. First, there must be trust in the audiologist to client relationship. Second, the clinician must practice empathetic or reflective listening. Lastly, the

clinician must be genuine. If these three conditions are not met prior to using the client centered therapy approach, counseling will not be effective.

Luterman (1999) described several counseling caveats, or pitfalls that can occur during the counseling process. The first caveat described is stereotyping. If a clinician stereotypes a certain person, he or she is no longer tending to the specific person or family, but to the expectations of those people. Transference is another caveat to counseling, which refers to bringing prior learning into the current situation. Projections are a clinician's responses to someone else's situations as though it were his or her own. In counseling, the clinician can empathize with a patient, but should not project their predicament as their own. Another example of a counseling caveat described by Luterman is providing implicit expectations. In counseling, expectations should be made explicit and very clear for the patient and family. Other caveats include over-helping and cheerleading, there Luterman states that the parents must be empowered and not invalidated.

Finally, Luterman (1999) describes the process of coping, or assuming a new identity. The goal of coping is to learn to live with the hearing impairment. Coping follows a process which begins with denial and resistance to the problem, leads to affirmation, or acknowledgment, and ultimately leads to integration or acceptance of the problem (Luterman, 1999).

Like supportive counseling, informational counseling is extremely important for parents of a newly diagnosed infant. Parents should be informed briefly about possible etiology of the hearing loss, as well as anatomy and

physiology of the auditory system. Parents who are better educated in how the auditory system functions can better understand the importance of amplification. Parents should also be familiarized with the speech banana, an important counseling tool, which allows patients and families to visually see where sounds occur on the audiogram. If parents are properly shown the degree and configuration of their child's hearing loss, they can use the speech banana or audiogram of familiar sounds to see what their child might not be hearing.

The audiologist plays an important role in the parents' acceptance of their child's hearing loss. Creating a supportive atmosphere conducive to learning and sharing is critical to the positive experience a family should encounter in the clinic. Audiologists should be encouraging, reassuring, and understanding to the difficult situation parents are encountering when discovering their child has hearing loss. Conveying information, developing a trusting relationship, and offering support and advice is crucial for successful outcomes in dealing with hearing loss for both the parent and the child. With the help and counsel of the audiologist, parents can better respond to their child's problems and needs as they grow with hearing loss.

CHAPTER 3

Children and Adolescents

As the child enters preschool, he or she is starting to develop a sense of autonomy. Learning to share, take turns, and cooperate with others are all skills that are being acquired rapidly at this age. A child with hearing loss may feel guilt during his or her preschool years because he may feel as though he or she to blame for the communication difficulties that are being experienced at school and in playgroups (Bristor, 1984). The audiologist should encourage parents to notice signs of their children's fear or guilt and provide reassurance that this behavior is normal. The parents should be advised to reach out to their child and provide support and comfort.

As children mature, they are learning at a rapid rate in school. Specific talents, such as art, music, mathematics and athletics, are beginning to emerge. It is important at this stage in the child's life that he or she develops a positive self-esteem and sense of competency (Clark & English, 2004). All children seek acceptance and a group of friends that affirm them. This acceptance is equally as critical to children with hearing loss. It is at this stage, when the child is a bit

older, that the audiologist and hearing-impaired child form a direct relationship with each other. The audiologist should work with the parents to help determine reasonable but challenging goals for their child in the school setting. Hearing impaired children should never feel defeated in school, and, conversely, they should never feel under challenged. Parents should always support their children as they face different stages in their lives and experience the vast array of emotions that accompany a hearing loss (Schlesinger, 1978). Parents need help and support from the audiologist just as hearing impaired children demand encouragement and reassurance from their parents.

It is in the best interest of the audiologist and the family to establish a relationship that fosters acceptance of the hearing loss, development of responsibility for amplification, as well as the establishment of advocacy roles. The grieving process influences the eventual acceptance of hearing loss. Audiologists should view feelings of guilt, depression, and anxiety as appropriate, healthy, and even necessary to facilitate the acceptance of hearing loss (Bristor, 1984). Sjoblad et al. (2001) stated that it is important that parents know that the initial fitting of hearing aids is expected to be upsetting. The hearing aids may act as a visual reminder of their child's impairment. It is appropriate for audiologists to talk with parents about their reactions, assuring them it is normal, but that full acceptance of the hearing loss and amplification will lead to better outcomes for the child and their development of a positive self concept.

Counseling for families of children with hearing loss is not clearly defined, as each family is unique in their own way. There is no specific set of personality

attributes, coping strategies, attitudes, or feelings. However, an audiologist may share some qualities of a healthy family that may help when the family includes a child deal with hearing loss. The family should possess an attitude of acceptance and an ability to listen to one another. Also, the family should be willing to adapt to change and appreciate differences in one another. It is important that the family strives for excellence while maintaining realistic expectations (Martin, George, O'Neal, & Daly, 1987). Although all families are different, the audiologist may help to counsel families in effective ways to communicate and support one another, while being sensitive to the family's struggle in adaptation. Counseling the family to communicate effectively contributes to successful aural rehabilitation.

The role of the audiologist when counseling parents of children with hearing loss is complex and multifaceted. The audiologist must possess a working knowledge of the child's hearing impairment, medical history, and education history. Conveying information to the parents about the child's hearing loss is an important aspect of audiologic counseling. Information and education about hearing loss should be communicated to all people involved with the child, not just the parents—including caretakers, teachers, and therapists. Additionally, as the child ages, they should be taught the factual information regarding their hearing loss and amplification. Information can be shared through several approaches. One-on-one counseling sessions, support group discussions, booklets, home study guides and in-service programs may all be used to deliver information to families of children with hearing loss (Martin et al., 1987).

Providing literature to families is an effective tool for educational counseling as the information may be reviewed at home and shared with extended family or friends. Informative or educational counseling is one of the main responsibilities of the audiologist.

It is important that audiologists encourage parents to be advocates for amplification. In a survey conducted by Davis et al. (2001), use of amplification by children with either mild bilateral hearing loss or unilateral hearing loss was surveyed. Of the population who responded to the survey, only 26% of the parents responded that their child wore amplification all of the time. Additionally, 4% reported only wearing amplification while at school and 50% reported never wearing amplification. The parents that reported their child never wears amplification reported that bullying as well as the stigma associated with hearing loss as the probable reasons for their child not wearing amplification.

To continue with amplification advocacy, Clark and English (2004) indicated that audiologists, as part of a counseling-based aural rehabilitation program, must promote responsibility and ownership within the hearing impaired child or adolescent. In other words, it should be the child's responsibility to wear his or her hearing aids. This encourages decision-making and ownership over the hearing loss within the child, and prevents the audiologist and parents from becoming the "hearing aid police", which can create an unhealthy relationship (Clark & English, 2004).

CHAPTER 4

Adults

According to Weinstein, aural rehabilitation includes two major components—evaluation and treatment. Evaluation includes identifying and quantifying the hearing impairment in terms of type and degree, as well as the hearing handicap experienced by the patient. Treatment for hearing loss includes technology (hearing aids and assistive listening devices) and counseling that help to reduce the communication difficulties encountered by the patient,reduce hearing handicap, and improve quality of life. In a study by Weinstein (1996) regarding hearing aids in the management of hearing loss in adults, the efficacy of rehabilitation services was evaluated. It was found that hearing aids do benefit the listener overall, with greatest benefit seen in quiet situations. Hearing aids improve the quality of life for those experiencing a hearing handicap as a result of their hearing impairment. Weinstein also examined the role of the audiologist in managing hearing impairment in the adult population. There was an observed difference in hearing aid benefit depending on the level of aural rehabilitation that was obtained by the patient. Greater hearing aid benefit was noted when counseling was involved. This is because

more time was spent with the patient in a private setting where hearing aid orientation and effectiveness could be discussed in further detail and with a greater degree of personalization.

Data reported by Abrams, Hnath-Chisolm, Guerriero, and Ritterman (1992) supported the utilization of a rehabilitation program that employs counseling-based practices. They suggested that improvements in emotional response and social function are maximized when hearing aids are dispensed in combination with counseling session(s) and appropriate hearing aid orientation. The Abrams et al. study included older adult subjects with mild to moderate sensorineural hearing loss. The subjects were divided into three groups based on treatment and rehabilitation strategy. Treatment group I received three weeks of audiologic rehabilitation centered on counseling in addition to their hearing aid. Treatment group II received a brief counseling session when they received their hearing aid, and Treatment group III was the control group, which simply completed a baseline Hearing Handicap Inventory for the Elderly (HHIE) and a two-month follow-up HHIE. Baseline measures of HHIE for the three treatment groups were comparable.

Two months following the original hearing aid fitting and baseline HHIE, Treatment groups I and II both showed significant reduction in the mean HHIE scores. Abrams et al. (1992) attributed this decrease in hearing handicap to the counseling-based audiologic rehabilitation that accompanied the use of the hearing aid. Those subjects who received counseling along with their hearing aid reported significantly less psychosocial handicap on the HHIE than did those who

did not receive any sort of counseling session when given their hearing aid. Abrams et al. (1992) suggested that if a hearing aid fails to be effective for the listener, a counseling session should be held because it has the capability to increase and promote hearing aid benefit. The results of this study demonstrate the value of counseling, which was exhibited through improved social function and hearing aid benefit reported by the subjects.

The attitude of the hearing impaired listener can affect the perceived benefit of hearing aids. Research conducted by Brooks (1989) found that many reasons for unsuccessful hearing aid use are related to the attitude of the user. The study was based on 200 people who were fitted with hearing aids for the first time in 1984. One hundred of the participants were selected as part of the experimental group and one hundred participants were selected as part of the control group. The ages ranged from 47 to 90 years with an average age of approximately 71 years. Questionnaires were sent to potential hearing aid users before they received amplification. These questionnaires assessed their feelings toward their hearing loss, the stigma associated with hearing aids, and social consequences of hearing loss. After four months of daily hearing aid use, the attitudes measured were compared with hearing aid benefit and outcomes. The outcome measures included amount of daily use, self-rated satisfaction, and self-assessed performance.

Brooks (1989) listed several findings from this research. The first, *awareness*, sought to examine the individual's awareness of the extent of their hearing loss. The research showed that of those who said they did not feel as

though their hearing loss was interfering with hearing sounds, 64% reported they were using their hearing aids less than 4 hours per day. Of those who reported they were missing sounds because of their hearing loss, 63% were using their hearing aids more than 4 hours per day. This finding demonstrates that the attitude of the participant affects their hearing aid use. The second finding considers *avoidance*, or the participants' likelihood to avoid meeting new people due to their hearing loss. Approximately 40% of the participants disclosed that they use avoidance. Of this 40%, 21% used amplification less than 4 hours per day, compared to 57% that claim to not have social difficulties. The results support the idea that negative feelings toward hearing loss and hearing aids correlated with poor outcomes of amplification. *Sensitivity* refers to the individual's recognition of the effect their hearing loss has on others. Approximately 56% of the participants recognized that their hearing loss does affect others. Of these participants, 70% used their hearing aids more than 4 hours per day. Of those who did not feel that their hearing loss affected others, less than 40% used their hearing aids more than 4 hours per day. In another review of the participants four years after the initial findings, the individuals who received counseling before and after receiving amplification were using their hearing aids 50% more than those who had not received counseling (Brooks, 1989). The author suggested that effective counseling during the hearing aid orientation can help to counteract unconstructive attitudes and lead to successful hearing aid use and management (Brooks, 1989).

Amplification is almost always necessary for the hearing impaired adult. It

is the expectation for most audiologists that hearing aids help to reduce the amount of hearing handicap experienced by the individual. Research conducted by Garstecki (1996) investigated the relationship between hearing handicap and hearing aid use. The study included 131 adult subjects, aged 60 to 90 years from the Chicago area, all of which had acquired hearing loss and were advised by hearing professionals to use hearing aids. The subjects were divided into two groups based on their adherence to the advice of the professional—adherents and non-adherents—and were asked to complete a series of questionnaires, including surveys of their formal education, average annual income, income satisfaction, health status, and health satisfaction. Additionally, the participants completed a measure of general intelligence test, the Profile for Hearing Aid Performance (PHAP) (Cox & Gilmore, 1990), the Communication Profile for the Hearing Impaired (CPHI; Demorest & Erdman, 1986), and the Hearing Aid Management (HAM) survey. The HAM survey was developed by Garstecki (1996) in order to determine which factors (reactions, cost, user appearance, hearing aid performance, and dispensers) influenced a potential user's decision to purchase and use amplification. The 28 item survey was administered to the participants who rated each item on a five-point scale with "1" indicating *Very Unimportant* and "5" indicating *Very Important*.

The results of the Garstecki (1996) study indicated that those who adhered to the advice of the hearing professional had greater success and demonstrated an advantage in self-perceived communication effectiveness when compared to the non-hearing aid users. Successful hearing aid users were more

proactive and accepting of their hearing loss, and were also more tolerant of imperfections in the amplification. Overall, adherents reported a lower hearing handicap than the non-adherents.

The results of the Garstecki (1996) study suggest that further counseling is needed for patients who are advised to wear hearing aids. More specifically, population-specific counseling that would focus on particular demographics and different personality traits that influence hearing aid selection and acceptance. The research also indicated that peer education is needed so that physicians and other hearing professionals can more appropriately counsel patients in the advantages of hearing aid use. It was found that successful hearing aid users, or adherents, were significantly less influenced by the advice of their physician. These users were more apt to base their decisions on personal perception of hearing aid benefit than on the instruction of the physician (Garstecki, 1996). Combining knowledge of personality traits, demographic characteristics, and hearing aid technology would increase the effectiveness of the counseling process, resulting in more successful management of hearing handicap (Garstecki, 1998). The personality profiles of those with hearing loss and, specifically, those who seek hearing aids can be more controlling, may be unwilling to use social support mechanisms and may be less open to different treatment options (Cox, Alexander, & Gray, 2005). It is important to be aware of these different personality traits found in the hearing impaired populations and remember to treat every patient individually, as each case is unique.

CHAPTER 5

Older Adults

In the United States today, the population of adults over the age of 65 years is growing rapidly (Kart & Kinney, 2001). Contributing to the growth of this age group are the large number of aging baby boomers, advancements in medicine resulting in longer life expectancy, and both emotional and financial support from family members. Because this age group is growing so quickly, it is important that many professionals be knowledgeable about the changes that occur with age and be prepared to work with this population.

Aging is a normal life process that refers to changes that occur during one's lifetime, spanning from birth to death. It is inevitable that physical and cognitive changes will occur with advancing age. However, this deterioration of body and mind is extremely individualized and will present itself in different forms and at different times for every aging person. A common aspect of normal aging is a decline in sensory function, including hearing, vision, and balance. According to the Older Americans 2010 Key Indicators of Well-Being, 42% of men over the age of 65 and 30% of women over the age of 65 reported that they

have some degree of trouble hearing, without the use of hearing aids or assistive listening devices. Age-related hearing loss is known as presbycusis, which typically occurs as a progressive, bilateral sensorineural hearing loss. Presbycusis normally presents itself first with increased thresholds for hearing in the high frequencies, meaning older adults have more difficulty hearing high-pitched sounds rather than low-pitched sounds. It is the most common type of hearing loss that older adults experience (Tun et al., 2009). With an estimated prevalence of 34 million older adults in America alone, presbycusis is among the most widespread disabilities in the world (Helzner et al., 2005).

Zhan et al. (2009) studied the effect of birth cohort on the prevalence of hearing loss among older adults using data collected from the Epidemiology of Hearing Loss Study as well as a study focusing on their children, the Beaver Dam Offspring Study. By comparing these two different groups of people, the researchers wanted to find the changes in lifestyle and health that could play a part in the patterns of hearing loss experienced by the aging population. The participants were grouped according to age—45-54 years, 55-64 years, 65-74 years and older than 75 years of age. Complete audiologic testing was completed on all 5,275 participants. Zhan et al. (2009) found that prevalence of hearing impairment was lower for the younger groups of people. Also, data showed that hearing loss was more prevalent in men than in women. These results provide evidence that either environmental or lifestyle differences between the age and gender groups play a role in the cause of hearing loss. The patterns that were observed in this study were the decrease in birth cohort effect

and a minimal difference by birth cohort in the very old adults. These results suggest an onset of hearing impairment later in life and accelerated incidence among very old adults from later birth cohorts. Healthy lifestyles can often postpone the onset of chronic illnesses and disabilities, possibly explaining the later onset of hearing loss in adults of younger birth cohorts (Zhan et al., 2009). This also suggests that with healthy lifestyle choices and modifications, age-related hearing loss can possibly be delayed or prevented, rather than a normal part of the aging process (Cruickshanks, 2009).

Hearing loss can affect older adults in a multitude of ways. A decline in communication abilities due to hearing loss can lead to depression, anxiety, low self-esteem, and confusion. The effects of hearing loss on the emotional and mental health of older adults can be detrimental. Age-related hearing loss can cause stress in older adults who have trouble realizing their disability. Difficulty with conversation and communication due to hearing impairment can lead to feelings of isolation or rejection in an otherwise social, outgoing individual. The effect of hearing loss on the emotional and mental health of older adults is an important area of focus for researchers in the field. Knowledge acquired about the emotional health of the hearing impaired elderly population can help clinicians and other health professionals to more successfully counsel and treat patients in the clinical setting.

Without a doubt, hearing loss in any individual creates a compromise in conversation capabilities. This is due to the loss of audibility and distortion of speech, leading to lack of clarity. Older adults with presbycusis are most often

concerned that they are missing parts of conversation, experience a decrease in family interaction and overall poorer communication skills. These feelings can ultimately lead to isolation and complete avoidance of social situations (Perlmutter et al., 2010).

Hearing loss affects how professionals and practitioners work with older adults. One of the most direct effects of hearing loss in the older population is an increased difficulty with comprehending oral communication. Because much of everyday living involves face-to-face communication, hearing loss may put an additional strain on the lives of older adults. Often times, many hearing-impaired older adults stay away from social situations that require listening to oral communication in order to avoid the embarrassment of not understanding conversation. They can become progressively more isolated as they eliminate social interaction. Professionals must practice good communication and speaking skills in order to enhance the ease at which an older adult with hearing loss or age-related hearing deficits can understand and listen. Important information is being conveyed from the professional to the older adult, so conversation must be clearly understood. When conversing with an older adult with hearing loss, the professional must slow the rate of speech, speak at an increased volume, and enunciate the consonants. The speaker must also remember to not exaggerate these speaking manners, as it can distort speech. To further ease the communication struggle, it is important that the speaker's face is visible to the elderly listener. The speaker should be facing the listener and lighting should be optimal. If professionals practice these critical

communication skills regularly, older hearing-impaired adults will encounter less difficulty in everyday conversation.

Self-efficacy is a psychological term that corresponds to a person's belief in his or her own competence or ability (Bandura, 1988). Self-efficacy determines how an individual approaches goals and challenges, and can affect how he or she interacts socially. Kramer et al. (2008) indicated that older hearing-impaired adults have lower self-efficacy and a decreased perception of support from friends and family when compared with older adults with cancer, arthritis, or diabetes. This study also found a positive correlation between diagnosis of presbycusis and depression, meaning those who are diagnosed with presbycusis are more likely to have depression. Other studies related to this have had mixed results, so it is important to further investigate the relation between mental health problems and age-related hearing loss.

Mohlman (2008) studied the resulting depression and anxiety that followed a diagnosis of presbycusis. The specific area of interest the cognitive self-consciousness (CSC), which is defined as the propensity to pay close attention to and monitor the content and progression of an individual's own thoughts and ideas (Mohlman, 2008). The study recruited 76 adults aged 65 years and above, who had recently been diagnosed with presbycusis. Each participant completed a full diagnostic audiologic evaluation, including case history, otoscopy, pure tone air and bone conduction thresholds, speech recognition thresholds, word discrimination scores, tympanometry, and acoustic reflex thresholds. Following diagnosis with age-related hearing loss, each participant was offered hearing

aids at a greatly reduced cost; however, participants were not pressured into using hearing aids. Next, data was collected using self-report scales and questionnaires. Measures included the Hamilton Scale for Anxiety, the Fears of Negative Evaluation Scale, the Hamilton Scale for Depression and the Beck Depression Inventory. The participants were asked to return to the clinic after the initial diagnosis for successive assessments and monitoring, at six months post diagnosis and at 12 months post diagnosis.

Results of Mohlman (2008) study showed that there is an increase in cognitive self-consciousness (CSC) within the first 6 months following diagnosis of hearing loss. Within the first year following diagnosis, CSC had a compounding effect on mood, including anxiety and depression. The use of a hearing aid did not enhance the mood of the participants, which shows that more psychological counseling is needed following the diagnosis of presbycusis—amplification of sounds and speech to an audible level was not enough to improve the mental health of the hearing-impaired participant, dealing with their new diagnosis. Mohlman (2008) concluded that immediate intervention is needed for these adults to prevent the social isolation that may result from the results of compromised hearing. Strategies for preventing depression, such as training patients to focus attention on external cues, should be taught to older adults. Aural rehabilitation is an important part of helping patients become effective and successful communicators, despite their hearing loss. As the population ages, and the number of people with presbycusis grows, it is important for clinicians and researchers to make an effort to reduce the effects of anxiety and

depression in reaction to a recent diagnosis of age-related hearing loss.

Not only age related hearing loss, but cognitive changes that occur with age, may affect an older adult's ability to communicate effectively. Tun et al. (2009) revealed a number of cognitive changes that occur with age that affect speech perception by older adults. These include reduced processing speed, poorer ability for tasks involving divided attention, and reduced working memory. Compromising these skills can greatly affect listening and communicating. Tun et al. (2009) also showed that older adults have increased difficulty listening to speech in background noise. They found that higher level cognitive abilities are responsible for processing spoken language in the presence of competing speech. These cognitive abilities were found to be compromised in older adults when compared to younger adults. To better serve this population, the hearing aid industry has used the available technology to meet the needs of older adults who face hearing loss and cognitive decline, which affects speech understanding (Kricos, 2006). One of the areas of improved technology in hearing aids that best helps this population is the advancement of optimal signal-processing strategies. This technology is more flexible to the listening environments, the patient's listening needs, and their capabilities.

Kricos (2006) reported that it is extremely important to explain to an older adult patient and their spouse or family members about appropriate expectations with amplification in older adults. The decreased ability to not only hear sound but process sound can be more difficult for an older adult with hearing loss than it may be for a younger person with hearing loss. Kricos (2006) stressed that the

family must realize that every situation is unique, and my require different courses of treatment, as well as different expectations regarding success with amplification.

The purpose of a study by Reese and Hnath-Chisolm (2005) was to examine how well content from the hearing aid orientation is recalled by older adults immediately following orientation and one month following orientation. Also, Reese and Hnath-Chisolm (2005) aimed to investigate how the patients' recall varied based on the audiologist delivering the information, patient's age, degree of hearing loss, and any prior knowledge of hearing aids. The investigators used 100 older adults as participants in this study. The participants were given a multiple choice test of hearing aid information directly following the orientation and again, one month later. The results revealed that the participants recognized 74% of the hearing aid knowledge immediately following orientation and 78% at the one month mark following orientation. Age of the participant did not affect their ability to recognize the information. A difference in recognition based on audiologist was found immediately following the orientation, but not at one month. Any prior knowledge of hearing aids resulted in successful recognition.

CHAPTER 6

Conclusion

Appropriate counseling of patients with hearing loss should continue throughout the individual's lifetime and the counseling techniques should evolve to best accommodate the different age ranges within the audiologic population. As people age, their needs, both emotionally and educationally, change. It is the audiologist's responsibility to counsel patients of every age regarding information and life with hearing loss.

Counseling-based aural rehabilitation for patients with hearing loss is an essential part of the treatment process. Audiologists counsel patients in regard to the type, degree and configuration of hearing loss, the use of amplification, and effective strategies for improving speech recognition and communication. However, it is important for audiologists to not only counsel in terms of information and education, but to lend supportive and affective counsel to patients and their families. Patients experience an emotional response to hearing loss and it is important that the audiologist be empathetic, offer reasonable assurances, and engage in good listening skills. Although counseling

is within the scope of practice of audiologists, many times effective counseling is not part of the aural rehabilitation protocol and many audiologists are not knowledgeable in successful counseling skills (Martin, Barr, & Bernstein, 1992). It is important that audiologists become proficient in appropriate counseling techniques in order to successfully treat and manage hearing loss for the hearing impaired population. Counseling may help to increase hearing aid benefit and make the patient feel more at ease with their hearing loss. As long as audiologists do not go beyond their counseling boundaries, it is within the best interest of the hearing impaired patient and their family to provide some degree of counseling-based aural rehabilitation.

The consequences of hearing loss and the magnitude of emotional response vary from one individual to the next, but it is without question that discovery of a hearing impairment induces some sort of emotional response in everyone. For parents of a child with hearing loss, the emotional response may consist of worry for their language development and future education. In the elderly, however, hearing loss may provoke feelings of loneliness and social isolation (Christian, Dluhy, & O'Neill, 1989). In successful counseling, it is important that the audiologist be empathetic to the to the emotions that the hearing impaired listener is experiencing. The audiologist should be an active listener, allowing the patient to tell their story and then reflect back on this expression of feelings and provide a thoughtful, supportive response or reassurance. The audiologist needs to understand the different phases of grieving that take place, including denial, anger, depression, and guilt (Christian,

Dluhy, & O'Neill, 1989).

One of the most important aspects of counseling is to develop a positive rapport with the patient. This helps to establish trust and understanding between patient and audiologist. In 1973, Brammer provided an outline that described eight stages of a "Helping Relationship". The first of these stages is *Entry* where the audiologist provides a foundation of trust. Secondly, *Clarification* is needed in order to refine the problems the patient experiences and the needs he or she has. The third stage of the Helping Relationship is *Structure*, where the skills and weaknesses of the audiologist are assessed and the cost effectiveness regarding time and payment are addressed. *Relationship* is the fourth stage in which the patient and audiologist must decide together if they will work together to find a successful outcome. If the pair decides mutually to continue to build the Helping Relationship, the fifth stage is *Exploration*. In the Exploration stage, intervention approaches are outlined and the emotional needs of the patient are investigated further. The sixth stage is *Consolidation*, which includes a definitive course of action for intervention and/or amplification and new skills are set into practice. *Planning* is part of the seventh stage where future referrals are arranged and termination strategies are devised. The final stage, *Termination*, includes a summary of the outcomes accomplished through counsel and treatment. Furthermore, referral, follow-up, and "stand-by" help is offered and encouraged to maintain good rapport and terminate the Helping Relationship successfully.

The Eight Stages of the Helping Relationship developed by Brammer

(1973) provide a valuable and constructive framework for audiologists to follow when forming an understanding connection between professional and patient. With a positive audiologist-to-patient relationship, counseling will be much more successful, hopefully leading to excellent outcomes in hearing aid management and perceived benefit from the hearing impaired listener.

According to Alpiner and McCarthy (2000), there are several main reasons that counseling should be an important skill learned by audiologists. First, counseling is fundamental to aural rehabilitation. As a whole, aural rehabilitation would be less effective and less successful without the help of good counseling. The second reason states that audiologists are the professionals who are ultimately responsible for counseling those who seek intervention for hearing problems. Audiologists are the professionals familiar with diagnosis and treatment of hearing loss. It is only appropriate that they are the professionals who provide sound counseling to their patients. Lastly, it has been proven that effective counseling enhances treatment outcomes, including hearing aid use and acceptance. For these reasons, among many more, counseling in audiology is a vital component to aural rehabilitation for those individuals dealing with hearing loss and their families.

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